CLAIMS:

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- 1. A diagnostic apparatus (1) comprising an imaging volume (1') for accommodating a patient (P) to be imaged, means (2) for positioning the patient within the imaging volume, imaging means (6) arranged to acquire a diagnostic image in an imaging plane of the patient positioned in the imaging volume, characterized in that the diagnostic apparatus (1) further comprises visualization means (10, 11, 12, 201, 20r) arranged to visualize a spatial position of the imaging plane within the imaging volume (1').
- 2. An apparatus according to Claim 1, characterized in that the visualization means (10, 11, 12, 20l, 20r) are arranged in the immediate vicinity of the imaging volume (1') and in that the visualization means comprise an adjustable light fan (10', 11', 12', 24l, 24r).
- 3. An apparatus according to Claim 2, characterized in that the visualization means (10, 11, 12, 201, 20r) further comprise indicators (271, 27r) to visualize a selected area (I) within the imaging plane.
 - 4. A method for guiding an interventional apparatus using a diagnostic apparatus according to Claim 1, said method comprising the steps of
- positioning a patient (P) within the imaging volume (1') of the diagnostic apparatus (1);
- using the imaging means (6) for acquiring a diagnostic image in an imaging plane comprising a target area of the patient;
- using the visualization means (10, 11, 12, 20l, 20r) for visualizing a projection of the imaging plane (L) of said diagnostic image on the patient's skin.
- 5. A method according to Claim 4 characterized in that said method further comprises the step of inserting the interventional apparatus in the patient according to the information contained in the diagnostic image and the imaging plane visualization on the patient's skin.

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- 6. A method for guiding an interventional apparatus using a diagnostic apparatus according to Claim 1, said method comprising the steps of:
- positioning a patient (P) within the imaging volume (1') of the diagnostic apparatus (1);
 - using the imaging means (6) for acquiring a diagnostic image in a plane comprising a target area of the patient;
 - calculating an approach trajectory for the interventional apparatus, said trajectory comprising an entry point (I) on the patient's skin and a target point within the target area; and
 - visualizing the entry point (I) together with a projection of the imaging plane (L) of the diagnostic image on the patient's skin.
- 7. A method according to Claim 6, characterized in that said method further comprises the step of inserting the interventional apparatus in the patient according to the calculated approach trajectory, the entry point and the imaging plane visualization on the patient's skin.